UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,915	11/18/2003	Juan Jose Schiavoni	32639.0001	3973

7590   04/05/2007

BAKER & HOSTETLER LLP
Washington Square
Suite 1100
1050 Connecticut Avenue, N.W.
WASHINGTON, DC 20036

EXAMINER
ZIA, SYED

ART UNIT	PAPER NUMBER
2131	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/714,915	SCHIAVONI ET AL.
	Examiner	Art Unit
	Syed Zia	2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 November 2003*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

This office action is in response to application filed on November 18, 2003.

Original application contained Claims 1-20. Therefore, presently pending claims are 1-

20.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claim 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Pavlin et

al. (US Patent 7,523,119).

3.   Regarding Claim 1, Pavlin teach and describe a software protection system for

use in a computer having a memory, the system comprising: a protection device

connectable to the computer; a computer program having at least a first portion thereof to

be stored in the computer and at least a second portion thereof stored in the protection

device; a flow of I/O communications between the computer and the protection device;

means in the protection device for executing the second portion of the program contained

in the device, wherein the execution of the second portion of the program is carried out

by sharing the memory and resources of the computer, and wherein the computer and the

protection device operate together and by using the first and second portions of the

computer program to execute the computing program (col.4 line 40 to col.5 line 62, and

col.8 line 33 to col.10 line 60).

4.   Regarding Claim 6, Pavlin teach and describe a software protection system for

use in a computer having a memory, the system comprising: a protection device

connectable to the computer; a computer program having at least a first portion thereof

for storing into the computer and at least a second portion thereof stored in the protection

device, wherein the memory and resources of the computer are shared by the protection

device and the computer at least during the execution of the second program portion

stored in the protection device (col.4 line 40 to col.5 line 62, and col.8 line 33 to col.10

line 60).

5.   Regarding Claim 12, Pavlin teach and describe a method for protecting a

computer program against the unauthorized copy and/or use thereof, the method

comprising: providing a protection device for connecting to a computer having a

memory; providing the computer program with at least a first portion thereof for storing

into the computer and at least a second portion thereof stored in the protection device;

sharing the memory of the computer between the computer and the protection device; and

operating the protection device and the computer together to execute the computer

program, whereby the first and second portions of the computer program are executed by

sharing computer resources (col.4 line 40 to col.5 line 62, and col.8 line 33 to col.10 line

60).

6.   Claims 1-5, 7, and 13-20 are rejected applied as above rejecting claims 1, 6, and

12. Furthermore, Pavlin teach an protection system, wherein:

As per Claim 2, wherein the first portion of the computer program comprises a

plurality of first program modules and the second portion of the computer program

comprises a plurality of second program modules, wherein the first program modules

include call instructions for execution of the second modules in the protection device

(col.8 line 39 to line 65).

As per Claim 3, wherein the second modules contain control transfer instructions

for directing the execution of the program to the first modules in the computer and/or

between modules in the protection device (col.9 line 21 to line 57).

As per Claim 4, wherein the protecting device comprises a physically secure

microprocessor, a volatile memory and a non volatile memory having the, second

program modules stored therein, the non volatile memory being non readable from

outside the device (col.4 line 40 to line 65).

As per Claim 5, wherein the second program modules are encrypted and are

decrypted for storing in the protection device (col.14 line 56 to col.15 line 17).

As per Claim 7, wherein the second portion of the program comprises modules of

the machine code of the program, the protection device comprises at least one physically

secure microprocessor, a volatile memory and a non volatile memory; communication

means between the computer and the protection device; and an interface program

providing an interface between the computer and the protection device (col.14 line 56 to

col.15 line 45).

As per Claim 8, wherein the protection device is a tamper proof device (Fig.2).

As per Claim 9, wherein the computer program includes timer means for

providing a limited period of time of use of the program (col.12 line 20 to line 50).

As per Claim 10, wherein the computer program includes interface means for

providing a communication flow between the computer and the protection device (col.5

line 65 to col.6 line 24).

As per Claim 11, wherein the computer program to be protected is a program used

in a under-license net wherein the number of programs to be executed in the net is

restricted (Fig.6, col.10 line 62 to col.12 line 44).

As per Claim 13, wherein the step of providing the computer program with at

least a first portion for storing into the computer and at least a second portion stored in

the protection device comprises forming the first portion of the program by removing

from the computer program at least one module consisting of a machine code, storing the

at least one removed module into the protection device to form the second portion of the

program, storing in the first portion of the program a calling module including function

calls for the execution of the at least one module that was removed from the program and

stored in the protection device, wherein the calling module replaces the at least one

module removed from the program (col.4 line 40 to col.5 line 62, and col.8 line 33 to

col.10 line 60).

As per Claim 14, wherein the step of executing the computer program comprises executing the first portion of the program in the computer, operating the calling module for executing at least one module of the second portion of the program in the protection device, and interchanging communications in a manner to prevent the cracking thereof (col.4 line 40 to col.5 line 62, and col.8 line 33 to col.10 line 60).

As per Claim 15, wherein the modules in the protection device include instructions for interrupting and routing the execution of the computer program, instructions acceding to external variables and instructions that are combined in a complex manner to prevent the cracking thereof (col.4 line 40 to col.5 line 62, and col.8 line 33 to col.10 line 60).

As per Claim 16, wherein the step of forming the first portion of the program by removing from the computer program at least one module comprises removing a plurality of modules for storing into the protection device to form the second portion of the program, wherein a plurality of calling modules are stored in the first portion of the program for replacing the modules removed therefrom, and the step of operating the protection device and the computer comprises the execution of control transfer instructions in the device for directing the execution of the program to the first modules in the computer and/or between modules in the protection device (col.4 line 40 to col.5 line 62, and col.8 line 33 to col.10 line 60).

As per Claim 17, wherein the step of removing modules from the computer program comprises selecting the modules containing at least control transfer instructions, instructions accessing to external variables and non-inferable instructions and removing the modules (col.7 line 26 to col.8 line 30).

As per Claim 18, wherein the modules are automatically removed (col.12 line 19 to line 50).

As per Claim 19, wherein the step of operating the protection device and the computer together to execute the computer program comprises operating the protection device to execute the portion of the program contained therein by emulating one of the computer processor and the virtual machines JAVA and NET (col.6 line 53 to col.7 line 33).

As per Claim 20, wherein the step of providing the computer program with at least a first portion and a second portion comprises removing at least one module of a plurality of modules of the program, with the at least one module comprising the machine code of the program to be protected and being selected in a manner that that the at least one module contains at least one of instructions for interrupting and directing or routing the execution of the program, instructions accessing outer variables and instructions that when grouped are mostly difficult to be inferred or cracked; storing the removed at least one module into the protection device, the device being non readable from outside; and replacing said at least one removed module by a call module for calling to the execution of the at least one module that has been stored into the device; and the step of operating the protection device and the computer comprises executing the call modules in the computer, whereby the call instructions execute the modules in the device; and executing the at least one module in the protection device by using the memory and resources of the computer and returning the execution to the computer once the at least one module of the protection device has been executed (col.4 line 40 to col.5 line 62, and col.8 line 33 to col.10 line 60).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Syed Zia whose telephone number is 571-272-3798. The

examiner can normally be reached on 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Customer Service Representative or access to the automated information system, call

800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SZ

March 18, 2007